



PROBLEM SOLVED™ PAPER

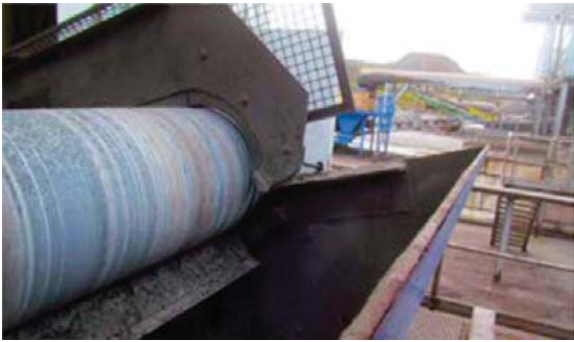
SOLUTION: Martin® QC1™ Cleaner HD STS

INDUSTRY: Recycling

LOCATION: Salzgitter, Germany

PROBLEM

Located in central Germany, a recycler of residuals from the production of iron and steel was experiencing extreme carryback on a main material transport belt, which was causing unsustainable plant pollution. An existing cleaner made from a horizontal metal plate tilted slightly to face the discharge chute did not adequately remove dust and fines from the cracks and divots in the belt. Operators found it damaged the belt and splice, causing costly premature belt replacement. Carryback on the return side of the belt caused fugitive dust to travel away from the operation area and affect air quality throughout the plant. Spillage along the belt path also built up around the mainframe and increased operational costs for cleaning.



The existing metal blade delivered poor cleaning performance, while damaging the belt and splice.

SOLUTION

After a thorough inspection that included a Walk the Belt assessment, Martin Engineering Germany representatives determined that a QC1™ Cleaner HD STS was better suited to clear the belt of adhered carryback. Using the patented Martin® Tensioner HD STS with a polyurethane blade formed in the "CARP" (Constant Angle Radial Pressure) design, the blade creates a tight seal on the belt, flows easily over the splice and maintains cleaning performance through all stages of blade life. Mounted on a sturdy stainless steel mandrel, the blade cartridge is serviced without confined space entry with a simple one-pin operation, making replacement a safe and simple procedure.



Inadequate cleaning reduced system productivity and increased maintenance costs.

RESULTS

Upon installation, operators discovered considerably more material was discharging into the chute with less carryback. Due to the reduction of material adhered to cracks and divots on the return side of the belt, less dust adhered to the belt, leading to an immediate improvement in plant air quality. Spillage along the belt path was also significantly reduced, leading to fewer workers taking less time to clean along the belt path, improving safety and reducing the cost of operation. "We have not had to replace the belt once since installing the QC1™," said an operator close to the project. "We are now assessing the effectiveness of other cleaning systems compared to this one."



Improved belt cleaning increased efficiency and reduced airborne dust.